

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference BW26F	<b>FOR FURTHER ACTION</b>	
See Form PCT/IPEA/416		
International application No. PCT/T2004/000054	International filing date ( <i>day/month/year</i> ) 12.02.2004	Priority date ( <i>day/month/year</i> ) 03.11.2003
International Patent Classification (IPC) or national classification and IPC A61K7/32, A61K33/04, D06M1/52		
Applicant SICEM INDUSTRIALE S.P.A. et al.		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of 3 sheets, as follows:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</li> <li><input checked="" type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</li> </ul> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)), containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>		
<p>4. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Box No. I Basis of the opinion</li> <li><input type="checkbox"/> Box No. II Priority</li> <li><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li><input type="checkbox"/> Box No. IV Lack of unity of invention</li> <li><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li><input type="checkbox"/> Box No. VI Certain documents cited</li> <li><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</li> <li><input type="checkbox"/> Box No. VIII Certain observations on the international application</li> </ul>		
Date of submission of the demand  20.07.2005	Date of completion of this report  25.11.2005	
Name and mailing address of the international preliminary examining authority:   European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer  Blas, V  Telephone No. +31 70 340-3508	



## **INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

### **Box No. I Basis of the report**

- With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
    - This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:
      - international search (under Rules 12.3 and 23.1(b))
      - publication of the international application (under Rule 12.4)
      - international preliminary examination (under Rules 55.2 and/or 55.3)
  - With regard to the **elements\*** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

**Description, Pages**

1-7 as originally filed

## **Claims, Numbers**

**16-19** as originally filed

as amended (together with any statement) under Art. 19 PCT

- a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3.  The amendments have resulted in the cancellation of:

  - the description, pages
  - the claims, Nos.
  - the drawings, sheets/figs
  - the sequence listing (*specify*):
  - any table(s) related to sequence listing (*specify*):

4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

  - the description, pages
  - the claims, Nos. 1 (in part), 2 , 3 (partially) , 8, 10 (partially), 11., (partially)
  - the drawings, sheets/figs
  - the sequence listing (*specify*):
  - any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes:	Claims 3-7 11-13
	No:	Claims 1, 10, 15
Inventive step (IS)	Yes:	Claims 3-7, 11-13
	No:	Claims 1, 9, 10, 14, 15
Industrial applicability (IA)	Yes:	Claims 1, 3-7, 9-15
	No:	Claims

**2. Citations and explanations (Rule 70.7):**

**see separate sheet**

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**Box No. VII Certain defects in the international application**

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The following defects in the form or contents of the international application have been noted:

**see separate sheet**

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**Re Item I**

**Basis of the report**

The amendments filed with the International Bureau under Article 19(1) introduce subject-matter which extends beyond the content of the application as filed, contrary to Article 19(2) PCT. The amendments concerned are the following:

Claims 1, 2, 3, 8, 10 and 11 : The word "resin" has been replaced by the expression "polymeric binder".

Claim 2: It is not explicitly nor implicitly disclosed in the originally filed application that acrylic, silicone, butadiene and polyurethane resins may be distributed in non-aqueous compositions.

Moreover polyurethane is only used as a glue.

Claim 3: It is not explicitly nor implicitly disclosed in the originally filed application that butadiene and polyurethane resins may be distributed in aqueous compositions.

Concerning polyurethane, the same remark as above applies.

Claim 8: New claim 8 is now depending from claim 1 resulting from a combination of originally filed claims 1, 2 and 3. Moreover, claim 8 is based on originally filed claim 10 which was depending from claims 2 and 1. Consequently, in the originally filed application the combination of original claims 1, 2, 3 and 10 has never been disclosed.

Claim 11: It is not explicitly nor implicitly disclosed in the originally filed application that butadiene and polyurethane resins may be distributed in aqueous compositions. Polyurethane was only mentioned as a glue.

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

Examination was carried out on claims or parts of claims which appear to meet the

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requirements of Article 19(2) PCT, i.e. claims whose subject-matter does not extend beyond the content of the application as originally filed:

Claim 1: by restoring the word "resin" instead of the expression "polymeric binder".

Claim 2 : not examined

Claim 3: only insofar as relating to acrylic or silicone resin and the word "resin" has been restored in place of the expression "polymeric binder".

Claims 4-7: as amended

Claim 8: not examined

Claims 9: as amended

Claim 10: insofar as the word "resin" has been restored in place of the expression "polymeric binder".

Claims 11: only insofar as relating to acrylic or silicone resin and the word "resin" has been restored in place of the expression "polymeric binder".

Claims 12-15: as amended.

**Novelty / Inventive step:**

Remark: for novelty assessment, the expression "intended to be worn on the human foot" is not a limiting feature.

Moreover, it is assumed that sooner or later, resins comprising sulphur will always release sulphur in the course of time and hence, the feature "releasing in the course of time" is not at all a limiting feature.

1) The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1, 10 and 15 is not new in the sense of Article 33(2) PCT.

D4 (US-A-4260660) discloses textiles materials which have been treated with a composition comprising an acrylic type latex and sulphur (see example 3, lines 52-56 and line 66).

Therefore the subject-matter of claims 1, 10 and 15 is not novel regarding to D4.

2) The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1, 10 and 15 does not involve an inventive step in the sense of Article 33(3) PCT.

The subject-matter of a claim which is not novel does not involve an inventive step.

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The subject-matter of claims 9 and 14 is trivial and does not involve an inventive step in the sense of Article 33(3) PCT.

3) Concerning dependent claims 3-7 and 11-13, the document D1(JP-A-9285483) is regarded as being the closest prior art to the subject-matter of those claims and discloses nonwoven fabric materials bearing sulphur. The treated fabrics are used to control the growth of athlete's foot bacteria and to deodorise foot odour.

The subject-matter of claims 3-7 and 11-13 therefore differs from this known D1 in that additionally a resin has been added to the aqueous treating bath.

Therefore, the subject-matter of claims 3-7 and 1-13 is novel regarding to D1.

The technical effect caused by this difference is not shown, therefore the objective technical problem could be " how to provide an alternative to what is known from the closest prior art".

There are no hints in the prior art that would suggest the skilled person to treat the textile materials with aqueous bath comprising sulphur and a resin,

Therefore, the subject-matter of claims 3-7 and 11-13 involves an inventive step in the sense of Article 33(3) PCT.

***Industrial Applicability:***

The subject-matter of claims 1, 3-7 and 9-15 is considered to meet the requirements of Article 33(4)PCT.

**Re Item VII**

**Certain defects in the international application**

1) The document D1 has not been identified in the description and the relevant background art disclosed therein has not been briefly summarised in an objective way. Hence, the requirements of Rule 5.1(a)(ii)PCT are not fulfilled.

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- 2) The final paragraph on page 7 implies that the extent of protection may be expanded in some vague and not precisely defined way; cf. the International Search and Preliminary Guidelines Chapter 5.30.
- 3) The description has not been adapted to the last amended set of claims, this leading to an inconsistency between claims and description, cf. the International Search and Preliminary Guidelines Chapter 5.29.

- 8 IAP12 Rec'd PCT/PTO 27 APR 2006

CLAIMS

1. A method for treating the smell of the human foot making use of an active deodorizing principle, characterized in that said active principle consists of 5 elementary sulphur or, in any case, a substance capable of liberating elementary sulphur.
2. The method according to claim 1, wherein said active principle is utilized for treating or, partially or wholly, impregnating textile and/or footwear products 10 intended to be worn on the foot.
3. The method according to claim 2, wherein said textile products are treated or impregnated with a composition comprising, besides said active principle, a resin capable of stably fixing said active principle to said products 15 and to release it gradually in the course of time.
4. The method according to claim 3, wherein said active principle and said resin are distributed in a non-aqueous composition with which said products are impregnated or sprayed.
- 20 5. The method according to claim 3 or claim 4, wherein said active principle and said resin are distributed in an aqueous bath in which said products are immersed.
6. The method according to claim 5, wherein said active principle in said aqueous bath has a concentration 25 comprised between 0,3 and 1.0 g/l, said resin being a silicon resin and having a concentration comprised between about 10 and 20 g/l, said aqueous bath comprising also a cationic surfactant and a softener having a concentration of, respectively, between about 10 and 20 g/l and between 30 about 2 and 5 g/l.
7. The method according to claim 6, wherein said aqueous bath is brought to a temperature of at least 40°C.

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8.. The method according to claim 5, wherein said active principle has a concentration comprised between 5 and 10 g/l and is emulsified with a non-ionic surfactant, said resin being an emulsified acrylic resin and having a 5 concentration comprised between about 3 and 5 g/l, the bath having a pH made slightly acid by means of acetic acid in case of wool-base products or a neutral pH in case of products with a cellulose base.

9. The method according to claim 8, wherein said textile 10 products, subsequently to said bath, are wrung and dried at a temperature of at least about 150°C in order to polymerize said acrylic resin.

10. The method according to claim 2, wherein said active principle is mixed with a glue utilized for assembling a 15 shoe or a part thereof.

11. The method according to any one of the preceding claims, wherein said active principle is wettable micronized sulphur.

12. A composition for the deodorizing treatment of the 20 human foot making use of an active deodorizing principle, characterized in that said active principle is elementary sulphur.

13. The method according to claim 12, capable of being utilized for partially or integrally treating textile 25 and/or footwear products intended to be worn on the foot, comprising in addition to said active principle also a resin capable of stably fixing said active principle on said products and to release it gradually in the course of time.

30 14. The method according to claim 13, comprising said active principle and said resin distributed in an aqueous bath in which said products are immersed.

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15. The method according to claim 14, wherein said active principle has a concentration comprised between 0,3 and 1.0 g/l, said resin being a silicon resin and having a concentration comprised between about 10 and 20 g/l, said 5 aqueous bath comprising also a cationic surfactant and a softener having a concentration of, respectively, between about 10 and 20 g/l and between about 2 and 5 g/l.

16. The method according to claim 14, wherein said active principle has a concentration comprised between 5 and 10 g/l and is emulsified with a non-ionic surfactant, said 10 resin being an emulsified acrylic resin and having a concentration comprised between about 3 and 5 g/l, the bath having a pH made slightly acid by means of acetic acid in case of wool-base products or a neutral pH in case 15 of products with a cellulose base.

17. The method according to claim 12, wherein said composition is a deodorizing cream for local application, comprising about 3% by weight of elementary sulphur mixed with vaseline and lanoline in equal percentages.

20 18. The method according to claims 12 to 17, wherein said active principle is wettable micronized sulphur.

19. Textile and/or footwear products integrally or partially impregnated or treated with a composition in accordance with any of claims 12 to 18.